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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/735,041	12/12/2003	Theodis Johnson	H0006004--1622	2494

128 7590 07/22/2005

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EXAMINER	
JONES, DIANE ELIZABETH	
ART UNIT	**PAPER NUMBER**
2862	

DATE MAILED: 07/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/735,041	JOHNSON, THEODIS	
	Examiner	Art Unit	
	Diane E. Jones	2862	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 December 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) *none* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on *12 December 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-4, 7,11-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Murata (5196794).

With respect to Claims 1, 4, 7 and 19, Murata teaches the claimed magnetic sensor assembly (Hall effect sensor, Abstract, lines 1-6) comprising a magnetic field source (flux generating means, Col. 1, line 45), a magnetic field sensor (Hall element, Col. 1, line 47), an air gap (Fig. 4, item 8 and Col. 3, line 44) and a platen (flux shutter disc, Fig. 3 and Col. 3, lines 5-7) which is coupled to the object and has a first region of position varying magnetic properties (plural vanes with predetermined angle of rotation, Col. 3, lines 7-8). Movement of the platen through the air gap in a first direction (rotation of the flux shutter) changes the magnetic reluctance of the air gap (Col. 3, lines 17-28 and Fig. 1 and Fig. 2) and the magnetic field measured by the sensor, wherein the measured magnetic field indicates the object position ((printed circuit, Col. 1, lines 48-53 and outside circuit, Col. 3, lines 32-35).

With respect to Claims 2 and 11, Murata teaches a first region (vanes in the flux shutter disc, Fig. 3 and Col. 3, lines 7-8) where the vanes vary in angle of radiation in a direction substantially perpendicular to the first direction which varies their lateral extent in the air gap.

With respect to Claims 3 and 12, Murata teaches a first region (vanes in the flux shutter disc, Fig. 3 and Col. 3, lines 7-8) where the vanes vary in angle of radiation in a direction substantially perpendicular to the first direction which varies their thickness in the air gap.

With respect to Claim 13, Murata teaches a first region (vanes in the flux shutter disc, Fig. 3 and Col. 3, lines 7-8) where the vanes vary in angle of radiation in a direction substantially perpendicular to the first direction which changes the magnetic density of the track as the platen rotates.

With respect to Claim 14, Murata teaches the invention set forth above and in particular a method of using the sensor as a position sensor (Col. 8, lines 14-18).

With respect to Claim 15, Murata teaches comparing the measured field with predetermined data to determine the object location (Col. 5, lines 11-32).

With respect to Claim 16 and 17, Murata teaches the use of a magnet (magnet, Col. 1, line 57 and Fig. 1) to provide the magnetic field. The dictionary defines a magnet as "1. an object surrounded by a magnetic field and that has the property, either natural or induced, of attracting iron or steel. 2. an electromagnet".

With respect to claim 18, Murata teaches using a Hall Effect sensor to measure the magnetic field (Hall element, Col. 1, line 44).

With respect to Claim 19, Murata teaches a postion sensor (Col. 8, lines 14-18) comprising a first body for magnetic field flow (flux generating means...forming a magnetic field path, Col. 1, lines 43-46), an air gap (Fig. 4, item 8 and Col. 3, line 44) and a second body (flux shutter disc, Fig. 3 and Col. 3, lines 5-7) which is coupled to the object and with a portion that has magnetic properties which vary with position (plural vanes with predetermined angle of rotation, Col. 3, lines 7-8). Movement of the region through the gap varies the magnetic field flowing through the body (Col. 3, lines 17-28 and Fig. 1 and Fig. 2) and the magnetic field is measured by the sensor, wherein the measured magnetic field indicates the object position ((printed circuit, Col. 1, lines 48-53 and outside circuit, Col. 3, lines 32-35).

2. Claims 1, 5, 6, and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Luetzow et al. (6459261).

With respect to Claims 1, Luetzow teaches the claimed magnetic sensor assembly (magnetic incremental motion detection system, Abstract, Lines 1, 4- 5) comprising a magnetic sensing assembly (a pair of magnetic sensing devices with air gaps and sensors, Col. 2, lines 47-50), a platen (target 20, Fig. 1A and Col. 4, lines 29-33) with position varying magnetic properties (Col. 4, lines 34-36 and lines 43-44). Movement of the platen through the air gap in a first direction changes the magnetic reluctance of the air gap and the magnetic field measured by the sensor (rotation of the target, Col. 5, lines 60-65), wherein the measured magnetic field indicates the object position (Col. 6, lines 28-36).

With respect to Claims 5, 6 and 10, Luetzow teaches multiple air gaps (Col.5, lines 43-55 and Fig. 1A, items 50, 60 and 70 (sensors with their associated air gaps)) and multiple regions on the platen (Col. 4, lines 42-48).

With respect to Claims 8 and 9, Luetzow teaches the use of multiple sensors (Claim 17, Col. 18, line 58) with a platen of multiple tracks (target with plurality of indications, Claim 17, Col. 18, lines 53-57) to determine the angular positon of the platen (Claim 17, Col. 18, lines 58-65).

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to the applicant's disclosure. The following patents contained magnetic sensor assemblies with rotating platens: 6124709, 6576890, 4785242, 3732381, 5444370, 4944028, 5861747.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Diane E. Jones whose telephone number is 571 272-1812. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Tokar can be reached on 571 272 -1812. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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